

Contributors to this Issue

HERBERT E. IVES, B.S., University of Pennsylvania, 1905; Ph.D., Johns Hopkins, 1908; assistant and assistant physicist, Bureau of Standards, 1908-09; physicist, Nela Research Laboratory, Cleveland, 1909-12; physicist, United Gas Improvement Company, Philadelphia, 1912-18; U. S. Army Air Service, 1918-19; research engineer, Western Electric Company and Bell Telephone Laboratories, 1919 to date. Dr. Ives' work has had to do principally with the production, measurement and utilization of light.

FRANK GRAY, B.S., Purdue, 1911; instructor and graduate student in physics at the University of Wisconsin, Ph.D., 1916; member of the Naval Experimental Station during the war. Mr. Gray entered the Bell Telephone Laboratories—then the Engineering Department of the Western Electric Company—in 1919 and has been closely associated with Dr. Ives in his studies on light.

J. W. HORTON, B.S., Massachusetts Institute of Technology, 1914; instructor in physics, 1914-16; Engineering Department of the Western Electric Company and Bell Telephone Laboratories, 1916-. Mr. Horton has been closely connected with the development of apparatus for carrier current communication.

R. C. MATHES, B.Sc., University of Minnesota, 1912; E.E., 1913; Engineering Department of the Western Electric Company and Bell Telephone Laboratories, 1913-. Mr. Mathes has played an important part in the repeat development program and in the design of vacuum tube amplifiers for a wide variety of uses.

H. M. STOLLER, degree of E.E. from Union College, 1913; M.S. in electrical engineering, 1915; Engineering Department of the Western Electric Company and later Bell Telephone Laboratories, 1914 and 1916-. Most of Mr. Stoller's work has dealt with special problems connected with electrical power machinery, particularly voltage and speed regulators. He designed a multi-frequency generator which is now employed in the voice frequency carrier telegraph system.

E. R. MORTON, M.E., Stevens, 1917; Western Electric Company and Electric Test Lab., 1917-18; Air Service, U. S. Army, 1918; development and manufacturing control of color motion pictures, 1919; Harvard, 1920, electro-chemical investigations of nickel;

Fairchild Aerial Camera Corp., 1921-22; Western Electric Company and Bell Telephone Laboratories, 1923-. Since entering the Laboratories, Mr. Morton's work has related principally to vacuum tube regulators.

D. K. GANNETT, B.S. in engineering, 1916, University of Minnesota; E.E., 1917; American Telephone and Telegraph Company, Engineering Department, 1917-19, and Department of Development and Research, 1919-. During the war, Mr. Gannett was engaged in development work on amplifiers for submarine cable telegraphy. Since then, his work has been in connection with the transmission development problems of toll line signaling, vacuum tubes, telephotography and television.

E. I. GREEN, A.B., Westminster College (Fulton, Mo.), 1915; University of Chicago, 1915-16; professor of Greek, Westminster College, 1916-17; Captain, U. S. Army, 1917-19; B.S. in electrical engineering, Harvard University, 1921; Department of Development and Research, American Telephone and Telegraph Company, 1921-. Mr. Green has been engaged largely on work in connection with carrier transmission problems and development.

EDWARD L. NELSON, B.S. in electrical engineering, Armour Institute of Technology, 1914; Engineering Department of Western Electric Company, 1917; technical expert, Bureau of Engineering, Navy Department, 1917-18; Lieut. U. S. N. R. F., 1918-19; Engineering Department of Western Electric Company and Bell Telephone Laboratories, 1919-. Mr. Nelson has been closely connected with the development of radio apparatus, particularly transmitting equipment for ship-to-shore telephony and for broadcasting.

KARL K. DARROW, S.B., University of Chicago, 1911; University of Paris, 1911-12; University of Berlin, 1912; Ph.D. in physics and mathematics, University of Chicago, 1917; Engineering Department, Western Electric Company and Bell Telephone Laboratories, 1917-. Dr. Darrow has been engaged largely in preparing studies and analyses of published research in various fields of physics.

R. L. YOUNG, B.S. in electrical engineering, University of Pennsylvania, 1907; Westinghouse Electric and Manufacturing Company, 1907-09; Carnegie Institute of Technology, instructor of mathematics, 1909-10; McGraw Publishing Company, district manager Pittsburgh and assistant manager New York of *Metallurgical and Chemical Engineering*, and editorial board *Electrical World*, 1909-11; Engineer-

ing Department, American Telephone and Telegraph Company, 1911, and Department of Development and Research, 1911-. Mr. Young has been in charge of Power Development work since 1911.

S. B. WRIGHT, M.E. in E.E., Cornell University, 1919; Department of Development and Research, American Telephone and Telegraph Company, 1919-. Mr. Wright has been engaged in transmission development work on long distance voice frequency telephone circuits.

H. C. SILENT, E.E., Cornell University, 1921; Department of Development and Research, American Telephone and Telegraph Company, 1921-. Mr. Silent has been associated with the development work on voice-operated switching devices, and spent some time in England in connection with their application to the New York-London telephone circuit.

WALTER A. SHEWHART, A.B., University of Illinois, 1913; A.M., 1914; Ph.D., University of California, 1917; Engineering Department, Western Electric Company and Bell Telephone Laboratories, 1918-. Mr. Shewhart is making a special study of the application of probability theories to inspection engineering.